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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,332	12/15/2003	Rong Jian Yang	USP2342H-JMG	7563

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EXAMINER
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KIM, YUNSOO

ART UNIT	PAPER NUMBER
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1644

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/737,332	Applicant(s) YANG ET AL.	
	Examiner Yunsoo Kim	Art Unit 1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 6-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. Claims 1-20 are pending.

Applicants' amendment to claims 7, 8, 10, 11, 13, 14, 16, 17, 19 and 20 on 8/1/05 is acknowledged.

2. Applicants' Response to Restriction filed on 8/1/05 is acknowledged.

Applicants' election with traverse of Group I, claims 1-5 drawn to a composition against dental caries bacteria is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). However, applicant is deemed to request a rejoinder under the product and method claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provision of MPEP § 821.04.

The requirement is still deemed proper and is therefore made FINAL.

Accordingly, claims 6-20 are withdrawn from the further consideration by examiner 37 CFR.1.142 (b) as being drawn to a non-elected invention.

Claims 1-5 are under consideration in the instant application.

3. Applicants' claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

4. Applicant is required to update US priority in the first line of the specification and update status of all pending applications.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,725,428 in view of U.S. Pat. No. 5,972,312 and Akita et al. (Journal of Food Science, 1992, 57(3):629-634).

The '428 patent teaches a dental caries preventive composition comprising antibody to *Streptococcus mutans* and sodium benzoate (col. 12-14, Example 4-9, Abstract, claims 1-16). The '428 patent further teaches that the antibody concentration ranges 0.002 to 5% (col. 4, lines 18-23), addition of well known ingredients depending on the type and form of a particular composition (col. 6, lines 56-65) and packaging of proper container for storage and convenient use (col. 7, lines 61-65).

The '428 patent does not explicitly teach IgY antibodies, combination of preservatives and packaging in atomizer or sucking bottle.

However, the '312 patent teaches the oral composition for tooth decay containing bactericide (i.e. composition against dental caries bacteria (abstract, col. 10, lines 23-35) and it is well known in dental product industry to add combination of preservatives or stabilizers as long as the effects of composition are not lessened (col. 4, lines 13-18).

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The '312 patent further teaches the combination of sodium benzoate and potassium sorbate as preservatives (col. 5, lines 13-16) in the amount of from 0.01 to 1.0%. The '312 patent also teaches packaging oral compositions in pump dispenser (i.e. spray type, col. 5, lines 40-55) and container of the squeeze type (i.e. sucking bottle, col. 5, lines 40-55) for convenience to use and ease to regulate dose.

The claim 2 is included as it suggests addition of both preservatives at the lower limit of 0.005% yielded to the additive amount of 0.01%.

However, Akita et al. teach advantages of using IgY antibodies. The IgY offers conventional antibody production, producing more specific antibodies against mammalian antigen and low cost to produce (p. 629, introduction).

Therefore, one of the ordinary skill in the art would have been motivated to combine IgY polyclonal antibodies taught by of Akita et al. in dental caries preventive composition taught by '428 patent to produce more specific antibodies and to reduce cost of production (p. 629, introduction) and combine teachings of the '312 patent to increase stability of the composition and for convenience to use.

From the teachings of references, it would have been obvious to one of ordinary skill in art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of the ordinary in the art at the time of invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

7. No claims are allowable.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yunsoo Kim whose telephone number is 571-272-3176. The examiner can normally be reached on Monday thru Friday 8:30 - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on 571-272-0841. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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September 9, 2005

  
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